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IN THE CLAIMS

Please amend the claims as follows. The following listing of claims replaces all prior versions.

1. (currently amended) A compound of the general formula (I)



wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

$A^1$  is  $(CH_2)_tY(CH_2)_u$ , wherein

Y is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is  $-NHCO-$  or  $-CONH-$ ,

$A^3$  is  $(CH_2)_r$ ,  $O(CH_2)_r$ , or  $S(CH_2)_r$ , wherein

r = 1,

sp is a divalent spacer or a bond, and

k is an integer from 5 to 100, and

R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose, Gal $\alpha$ 1-3Gal, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, Neu5Ac $\alpha$ 2-6GalNAc, SiaLe $^A$ , SiaLe $^X$ , HSO<sub>3</sub>Le $^A$ , HSO<sub>3</sub>Le $^X$ , Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3Gal $\beta$ 1-4Glc, Neu5Ac $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3Gal $\beta$ 1-3Gal, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>(Sia)Le $^X$ , HSO<sub>3</sub>(Sia)Le $^A$ , Le $^Y$ , GlcNAc $\beta$ 1-6(GlcNAc $\beta$ 1-3)Gal $\beta$ 1-4Glc, GalNAc $\beta$ 1-4(Neu5Ac $\alpha$ 2-3)Gal $\beta$ 1-4Glc, mannose-6-phosphate, GalNAc $\beta$ 1-

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4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc, or Gal $\alpha$ 1-4Gal $\beta$ 1-4GlcNAc; and

m is at least 23 or 4,

with the proviso that

- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and
- (4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000.

2. (previously presented) A compound according to claim 1, wherein the molar mass of the fragment X(K)<sub>m</sub> is less than 4,000.

3. (currently amended) A compound according to claim 1, wherein

m is an integer from 2 to 3 or 4, and

X is CH<sub>4-m</sub>, NH<sub>3-m</sub>, N<sup>+</sup>H<sub>4-m</sub>, >P-(when m = 3), >P<sup>+</sup><(when m = 4), >B- (when m = 3), a linear atom group C<sub>2</sub>H<sub>6-m</sub>, >CH(CH<sub>2</sub>)<sub>z</sub>CH<, >C=C<, >N<, >N(CH<sub>2</sub>)<sub>z</sub>N< wherein z = 2 - 6, when m = 4), a carbocyclic atom group C<sub>6</sub>H<sub>6-m</sub>, C<sub>6</sub>H<sub>12-m</sub>, or a heterocyclic atom group C<sub>3</sub>N<sub>3</sub> (when m = 3), C<sub>4</sub>N<sub>2</sub> (when m = 4).

4. (previously presented) A compound according to claim 1, wherein there are at least 3 K.

5. (previously presented) A compound according to claim 1, wherein at least two R are not hydrogen.

6. (currently amended) A compound according to claim 1, wherein at least three R are not hydrogen. A compound of the general formula (I)

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<u>X(B)<sub>m</sub></u>	(I)
<u>wherein</u>	
<u>X</u>	<u>is an m-valent unit and</u>
<u>B</u>	<u>are identical or different and denote K-R, wherein</u>
<u>K</u>	<u>is a bond or is A<sup>1</sup>-(A<sup>2</sup>-A<sup>3</sup>)<sub>k</sub>-sp, wherein</u>
<u>A<sup>1</sup></u>	<u>is (CH<sub>2</sub>)<sub>t</sub>Y(CH<sub>2</sub>)<sub>u</sub>, wherein</u>
<u>Y</u>	<u>is &gt;C=O, &gt;NH, -O-, -S- or a bond,</u>
<u>t</u>	<u>is an integer from 0 to 6 and</u>
<u>u</u>	<u>is an integer from 0 to 6,</u>
<u>(A<sup>2</sup>-A<sup>3</sup>) can be any A<sup>2</sup> and any A<sup>3</sup> in any combination.</u>	
<u>A<sup>2</sup></u>	<u>is -NHCO- or -CONH-</u>
<u>A<sup>3</sup></u>	<u>is (CH<sub>2</sub>)<sub>r</sub>, O(CH<sub>2</sub>)<sub>r</sub>, or S(CH<sub>2</sub>)<sub>r</sub>, wherein</u>
<u>r</u>	<u>= 1,</u>
<u>sp</u>	<u>is a divalent spacer or a bond, and</u>
<u>k</u>	<u>is an integer from 5 to 100, and</u>
<u>R</u>	<u>is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose, Galα1-3Gal, Galα1-3(Fucα1-2)Gal, GalNAcα1-3(Fucα1-2)Gal, Neu5Aca2-6GalNAc, SiaLe<sup>A</sup>, SiaLe<sup>X</sup>, HSO<sub>3</sub>Le<sup>A</sup>, HSO<sub>3</sub>Le<sup>X</sup>, Galα1-3Galβ1-4GlcNAc, Galα1-3Galβ1-4Glc, Neu5Aca2-6Galβ1-4GlcNAc, HSO<sub>3</sub>GlcAβ1-3Galβ1-4GlcNAc, N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside, HSO<sub>2</sub>GlcAβ1-3Gal, HSO<sub>2</sub>GlcAβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc, GalNAcα1-3(Fucα1-2)Galβ1-4GlcNAc, GalNAcα1-3(Fucα1-2)Galβ1-4GlcNAc, HSO<sub>2</sub>(Sia)Le<sup>X</sup>, HSO<sub>2</sub>(Sia)Le<sup>A</sup>, Le<sup>Y</sup>, GlcNAcβ1-6(GlcNAcβ1-3)Galβ1-4Glc, GalNAcβ1-4(Neu5Aca2-3)Galβ1-4Glc, mannose-6-phosphate, GalNAcβ1-4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Galα1-4Galβ1-4Glc, or Galα1-4Galβ1-4GlcNAc; and</u>
<u>m</u>	<u>is at least 2,</u>
<u>with the proviso that</u>	
(1)	<u>in the compound at least three R are not hydrogen,</u>
(2)	<u>there are at least two K that are not a bond, and</u>

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(3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and  
(4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000.

7-8. (canceled).

9. (currently amended) A compound according to claim 1, wherein  
m is an integer from 2 to 4,

X is CH<sub>4-m</sub>,

A<sup>1</sup> is CH<sub>2</sub>,

A<sup>2</sup> is NHCO,

A<sup>3</sup> is CH<sub>2</sub>,

k is 8,

sp is (CH<sub>2</sub>)<sub>3</sub>CONHCH<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>-4-CH<sub>2</sub>O and

R is Neu5Aca2'6GalB1'4GlcNAe

A compound of the general formula (I)

X(B)<sub>m</sub> (I)

wherein

X is CH<sub>4-m</sub> and

B are identical or different and denote K-R, wherein

K is a bond or is A<sup>1</sup>-(A<sup>2</sup>-A<sup>3</sup>)<sub>t</sub>-sp, wherein

A<sup>1</sup> is CH<sub>2</sub>, wherein

Y is >C=O, >NH, -O-, -S- or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

(A<sup>2</sup>-A<sup>3</sup>) can be any A<sup>2</sup> and any A<sup>3</sup> in any combination.

A<sup>2</sup> is NHCO,

A<sup>3</sup> is CH<sub>2</sub>, wherein

r = 1.

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sp is  $(\text{CH}_2)_3\text{CONHCH}_2\text{CONHC}_6\text{H}_4\text{-4-CH}_2\text{O-}$ , and  
k is 8, and  
R is Neu5Aca2-6Gal $\beta$ 1-4GlcNAc; and  
m is an integer from 2 to 4,  
with the proviso that  
(1) in the compound at least one R is not hydrogen.  
(2) there are at least two K that are not a bond, and  
(3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and  
(4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000.

10. (currently amended) An aggregate of the general formula (II):



wherein X(B)<sub>m</sub> may be identical or different and denote a compound of the general formula (I),



wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

$A^1$  is  $(\text{CH}_2)_tY(\text{CH}_2)_u$ , wherein

Y is >C=O, >NH, -O-, -S- or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is -NHCO- or -CONH-,

$A^3$  is  $(\text{CH}_2)_r O(\text{CH}_2)_s$ , or  $S(\text{CH}_2)_r$ , wherein

r = 1,

sp is a divalent spacer or a bond, and

k is an integer from 5 to 100, and

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R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose, Gal $\alpha$ 1-3Gal, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, Neu5Ac $\alpha$ 2-6GalNAc, SiaLe $^A$ , SiaLe $^X$ , HSO<sub>3</sub>Le $^A$ , HSO<sub>3</sub>Le $^X$ , Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3Gal $\beta$ 1-4Glc, Neu5Ac $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc, N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, GalNAc $\alpha$ , GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>(Sia)Le $^X$ , HSO<sub>3</sub>(Sia)Le $^A$ , Le $^Y$ , GlcNAc $\beta$ 1-6(GlcNAc $\beta$ 1-3)Gal $\beta$ 1-4Glc, GalNAc $\beta$ 1-4(Neu5Ac $\alpha$ 2-3)Gal $\beta$ 1-4Glc, mannose-6-phosphate, GalNAc $\beta$ 1-4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc, or Gal $\alpha$ 1-4Gal $\beta$ 1-4GlcNAc; and

m is at least 23 or 4,

with the proviso that

- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and
- (4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000, and  
n is from 2 to 100,000,

and wherein X(B)<sub>m</sub> are non-covalently bonded.

11. (previously presented) An aggregate according to claim 10 having a leaf-like, linear, cyclic, polycyclic, polyhedral, spherical or dendritic structure.

12. (currently amended) An aggregate according to claim 10 of two or more different compounds comprising a compound of the general formula (I)

X(B)<sub>m</sub> (I)

wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

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K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein  
 $A^1$  is  $(CH_2)_tY(CH_2)_u$ , wherein  
Y is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,  
t is an integer from 0 to 6 and  
u is an integer from 0 to 6,  
 $(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,  
 $A^2$  is  $-NHCO-$  or  $-CONH-$ ,  
 $A^3$  is  $(CH_2)_r$ ,  $O(CH_2)_r$ , or  $S(CH_2)_r$ , wherein  
r = 1,  
sp is a divalent spacer or a bond, and  
k is an integer from 5 to 100, and

R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose, Gal $\alpha$ 1-3Gal, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, Neu5Aca2-6GalNAc, SiaLe<sup>A</sup>, SiaLe<sup>X</sup>, HSO<sub>3</sub>Le<sup>A</sup>, HSO<sub>3</sub>Le<sup>X</sup>, Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3Gal $\beta$ 1-4Glc, Neu5Aca2-6Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc, N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, GalNAca, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>(Sia)Le<sup>X</sup>, HSO<sub>3</sub>(Sia)Le<sup>A</sup>, Le<sup>Y</sup>, GlcNAc $\beta$ 1-6(GlcNAc $\beta$ 1-3)Gal $\beta$ 1-4Glc, GalNAc $\beta$ 1-4(Neu5Aca2-3)Gal $\beta$ 1-4Glc, mannose-6-phosphate, GalNAc $\beta$ 1-4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc, or Gal $\alpha$ 1-4Gal $\beta$ 1-4GlcNAc; and  
m is at least 23 or 4,

with the proviso that

- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and
- (4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000.

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13. (canceled)

14. (previously presented) A method according to claim 27, further comprising adding a concentrated salt solution, changing the pH or the temperature, or adding organic solvents.

15. (currently amended) A method for changing the structure of an aggregate of the general formula (II)

$\{X(B)_m\}_n$  (II)

wherein  $X(B)_m$  may be identical or different and denote a compound of the general formula (I),

$X(B)_m$  (I)

wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

$A^1$  is  $(CH_2)_tY(CH_2)_u$ , wherein

Y is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is  $-NHCO-$  or  $-CONH-$ ,

$A^3$  is  $(CH_2)_r$ ,  $O(CH_2)_r$ , or  $S(CH_2)_r$ , wherein

r = 1,

sp is a divalent spacer or a bond, and

k is an integer from 5 to 100, and

R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose,  $Gal\alpha 1-3Gal$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $Neu5Ac\alpha 2-6GalNAc$ ,  $SiaLe^A$ ,  $SiaLe^X$ ,  $HSO_3Le^A$ ,  $HSO_3Le^X$ ,  $Gal\alpha 1-3Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3Gal\beta 1-4Glc$ ,  $Neu5Ac\alpha 2-6Gal\beta 1-4GlcNAc$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc$ , N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside,  $HSO_3GlcA\beta 1-3Gal$ ,

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HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, GalNAc $\alpha$ , GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>(Sia)Le<sup>X</sup>, HSO<sub>3</sub>(Sia)Le<sup>A</sup>, Le<sup>Y</sup>, GlcNAc $\beta$ 1-6(GlcNAc $\beta$ 1-3)Gal $\beta$ 1-4Glc, GalNAc $\beta$ 1-4(Neu5Ac $\alpha$ 2-3)Gal $\beta$ 1-4Glc, mannose-6-phosphate, GalNAc $\beta$ 1-4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc, or Gal $\alpha$ 1-4Gal $\beta$ 1-4GlcNAc; and

m is at least 23 or 4,

with the proviso that

- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and
- (4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000, and

n is from 2 to 100,000,

and wherein X(B)<sub>m</sub> are non-covalently bonded,  
further comprising adding a concentrated salt solution, changing the temperature or the pH and/or adding urea, trifluoroethanol or peptides.

16. (previously presented) A method according to claim 27 further comprising increasing the specific physiological activities of molecules by incorporating a radical R into a compound of the general formula (I).

17. (canceled)

18. (currently amended) A method of treating diseases arising from inflammation, viral and bacterial infections, influenza viruses, selectin-mediated inflammatory processes, tumour metastases, or in the neutralisation of antibodies in autoimmune disorders and transplants; said method comprising administering a compound of the general formula (I)

X(B)<sub>m</sub> (I)

wherein

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X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

$A^1$  is  $(CH_2)_tY(CH_2)_u$ , wherein

Y is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is  $-NHCO-$  or  $-CONH-$ ,

$A^3$  is  $(CH_2)_r$ ,  $O(CH_2)_r$ , or  $S(CH_2)_r$ , wherein

r = 1,

sp is a divalent spacer or a bond, and

k is an integer from 5 to 100, and

R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose,  $Gal\alpha 1-3Gal$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $Neu5Ac\alpha 2-6GalNAc$ ,  $SiaLe^A$ ,  $SiaLe^X$ ,  $HSO_3Le^A$ ,  $HSO_3Le^X$ ,  $Gal\alpha 1-3Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3Gal\beta 1-4Glc$ ,  $Neu5Ac\alpha 2-6Gal\beta 1-4GlcNAc$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc$ , N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside,  $HSO_3GlcA\beta 1-3Gal$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc\beta 1-3Gal\beta 1-4Glc$ ,  $GalNAc\alpha$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $HSO_3(Sia)Le^X$ ,  $HSO_3(Sia)Le^A$ ,  $Le^Y$ ,  $GlcNAc\beta 1-6(GlcNAc\beta 1-3)Gal\beta 1-4Glc$ ,  $GalNAc\beta 1-4(Neu5Ac\alpha 2-3)Gal\beta 1-4Glc$ , mannose-6-phosphate,  $GalNAc\beta 1-4GlcNAc$ , oligo-sialic acid, N-glycolylneuraminic acid,  $Gal\alpha 1-4Gal\beta 1-4Glc$ , or  $Gal\alpha 1-4Gal\beta 1-4GlcNAc$ ; and

m is at least 23 or 4.

with the proviso that

- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and

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(4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000; or  
administering into an aggregate of the general formula (II)

{X(B)<sub>m</sub>}<sub>n</sub> (II)

wherein

X(B)<sub>m</sub> may be identical or different and denote a compound of the general formula (I), and  
n is from 2 to 100,000,  
and wherein X(B)<sub>m</sub> are non-covalently bonded.

19. (canceled)

20. (previously presented) A method according to claim 18 further comprising  
preparing functionalized molecular surfaces.

21-22. (canceled).

23. (currently amended) A compound of the general formula (I),

X(B)<sub>m</sub> (I)

wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is A<sup>1</sup>-(A<sup>2</sup>-A<sup>3</sup>)<sub>k</sub>-sp, wherein

A<sup>1</sup> is (CH<sub>2</sub>)<sub>t</sub>Y(CH<sub>2</sub>)<sub>u</sub>, wherein

Y is >C=O, >NH, -O-, -S- or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

(A<sup>2</sup>-A<sup>3</sup>) can be any A<sup>2</sup> and any A<sup>3</sup> in any combination,

A<sup>2</sup> is -NHCO- or -CONH-,

A<sup>3</sup> is (CH<sub>2</sub>)<sub>r</sub>, O(CH<sub>2</sub>)<sub>s</sub>, or S(CH<sub>2</sub>)<sub>r</sub>, wherein

r = 1,

sp is a divalent spacer or a bond, and

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$k$  is an integer from 5 to 100, and

$R$  is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose, Gal $\alpha$ 1-3Gal, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal, Neu5Ac $\alpha$ 2-6GalNAc, SiaLe<sup>A</sup>, SiaLe<sup>X</sup>, HSO<sub>3</sub>Le<sup>A</sup>, HSO<sub>3</sub>Le<sup>X</sup>, Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3Gal $\beta$ 1-4Glc, Neu5Ac $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc, N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal, HSO<sub>3</sub>GlcA $\beta$ 1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc, GalNAc $\alpha$ , GalNAc $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, Gal $\alpha$ 1-3(Fuc $\alpha$ 1-2)Gal $\beta$ 1-4GlcNAc, HSO<sub>3</sub>(Sia)Le<sup>X</sup>, HSO<sub>3</sub>(Sia)Le<sup>A</sup>, Le<sup>Y</sup>, GlcNAc $\beta$ 1-6(GlcNAc $\beta$ 1-3)Gal $\beta$ 1-4Glc, GalNAc $\beta$ 1-4(Neu5Ac $\alpha$ 2-3)Gal $\beta$ 1-4Glc, mannose-6-phosphate, GalNAc $\beta$ 1-4GlcNAc, oligo-sialic acid, N-glycolylneuraminic acid, Gal $\alpha$ 1-4Gal $\beta$ 1-4Glc, or Gal $\alpha$ 1-4Gal $\beta$ 1-4GlcNAc; and

$m$  is at least 23 or 4,

with the proviso that

- (1)  $X$ ,  $B$  and  $m$  are so selected that an intermolecular association of the  $K$  in liquid phase is possible, especially under aqueous conditions, by the formation of hydrogen bonds, with formation of aggregates, and
- (2) the molar mass of the fragment  $X(K)_m$  is less than 20,000, especially less than 4000.

24-26. (canceled)

27. (currently amended) A method of preparing an aggregate comprising: preparing a compound of the general formula (II)



wherein

$X(B)_m$  may be identical or different and denote a compound of the general formula (I),



wherein

$X$  is an  $m$ -valent unit and

$B$  are identical or different and denote  $K-R$ , wherein

$K$  is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

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$A^1$  is  $(CH_2)_t Y(CH_2)_u$ , wherein  
 $Y$  is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,  
 $t$  is an integer from 0 to 6 and  
 $u$  is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is  $-NHCO-$  or  $-CONH-$ ,

$A^3$  is  $(CH_2)_r O(CH_2)_s$ , or  $S(CH_2)_t$ , wherein

$r = 1$ ,

$sp$  is a divalent spacer or a bond, and

$k$  is an integer from 5 to 100, and

$R$  is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose,  $Gal\alpha 1-3Gal$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $Neu5Ac\alpha 2-6GalNAc$ ,  $SiaLe^A$ ,  $SiaLe^X$ ,  $HSO_3Le^A$ ,  $HSO_3Le^X$ ,  $Gal\alpha 1-3Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3Gal\beta 1-4Glc$ ,  $Neu5Ac\alpha 2-6Gal\beta 1-4GlcNAc$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc$ , N-acetyl-lactosamine or poly-lactosamine, sialic acid benzyl glycoside,  $HSO_3GlcA\beta 1-3Gal$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc\beta 1-3Gal\beta 1-4Glc$ ,  $GalNAcu$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $HSO_3(Sia)Le^X$ ,  $HSO_3(Sia)Le^A$ ,  $Le^Y$ ,  $GlcNAc\beta 1-6(GlcNAc\beta 1-3)Gal\beta 1-4Glc$ ,  $GalNAc\beta 1-4(Neu5Ac\alpha 2-3)Gal\beta 1-4Glc$ , mannose-6-phosphate,  $GalNAc\beta 1-4GlcNAc$ , oligo-sialic acid, N-glycolylneuraminic acid,  $Gal\alpha 1-4Gal\beta 1-4Glc$ , or  $Gal\alpha 1-4Gal\beta 1-4GlcNAc$ ; and

$m$  is at least 23 or 4,

with the proviso that

- (1) in the compound at least one  $R$  is not hydrogen,
- (2) there are at least two  $K$  that are not a bond, and
- (3)  $X$ ,  $B$  and  $m$  are so selected that an intermolecular association of the  $K$  in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of  $R$  that are not hydrogen, and
- (4) the molar mass of the fragment  $X(K)_m$  is less than 20,000, and

$n$  is from 2 to 100,000,

and wherein  $X(B)_n$  are non-covalently bonded.

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28. (currently amended) A method of preparing a therapeutic drug comprising:  
preparing the compound of the general formula (I)

$X(B)_m$  (I)

wherein

X is an m-valent unit and

B are identical or different and denote K-R, wherein

K is a bond or is  $A^1-(A^2-A^3)_k-sp$ , wherein

$A^1$  is  $(CH_2)_tY(CH_2)_u$ , wherein

Y is  $>C=O$ ,  $>NH$ ,  $-O-$ ,  $-S-$  or a bond,

t is an integer from 0 to 6 and

u is an integer from 0 to 6,

$(A^2-A^3)$  can be any  $A^2$  and any  $A^3$  in any combination,

$A^2$  is  $-NHCO-$  or  $-CONH-$ ,

$A^3$  is  $(CH_2)_r O(CH_2)_r$ , or  $S(CH_2)_r$ , wherein

r = 1,

sp is a divalent spacer or a bond, and

k is an integer from 5 to 100, and

R is hydrogen, sialic acid, sialyl lactose, sialyl lactosamine, lactose, mannose,  $Gal\alpha 1-3Gal$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal$ ,  $Neu5Ac\alpha 2-6GalNAc$ ,  $SiaLe^A$ ,  $SiaLe^X$ ,  $HSO_3Le^A$ ,  $HSO_3Le^X$ ,  $Gal\alpha 1-3Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3Gal\beta 1-4Glc$ ,  $Neu5Ac\alpha 2-6Gal\beta 1-4GlcNAc$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc$ , N-acetyl-lactosamine or polylactosamine, sialic acid benzyl glycoside,  $HSO_3GlcA\beta 1-3Gal$ ,  $HSO_3GlcA\beta 1-3Gal\beta 1-4GlcNAc\beta 1-3Gal\beta 1-4Glc$ ,  $GalNAc\alpha$ ,  $GalNAc\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $Gal\alpha 1-3(Fuc\alpha 1-2)Gal\beta 1-4GlcNAc$ ,  $HSO_3(Sia)Le^X$ ,  $HSO_3(Sia)Le^A$ ,  $Le^Y$ ,  $GlcNAc\beta 1-6(GlcNAc\beta 1-3)Gal\beta 1-4Glc$ ,  $GalNAc\beta 1-4(Neu5Ac\alpha 2-3)Gal\beta 1-4Glc$ , mannose-6-phosphate,  $GalNAc\beta 1-4GlcNAc$ , oligo-sialic acid, N-glycolylneuraminic acid,  $Gal\alpha 1-4Gal\beta 1-4Glc$ , or  $Gal\alpha 1-4Gal\beta 1-4GlcNAc$ ; and

m is at least 23 or 4,

with the proviso that

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- (1) in the compound at least one R is not hydrogen,
- (2) there are at least two K that are not a bond, and
- (3) X, B and m are so selected that an intermolecular association of the K in liquid phase by the formation of hydrogen bonds is possible, with formation of aggregates that present on the surface a plurality of R that are not hydrogen, and
- (4) the molar mass of the fragment X(K)<sub>m</sub> is less than 20,000; or

preparing the compound of the general formula (II):



wherein

X(B)<sub>m</sub> may be identical or different and denote a compound of the general formula (I), and n is from 2 to 100,000,  
and wherein X(B)<sub>m</sub> are non-covalently bonded; and  
a pharmaceutically acceptable carrier.

29. (canceled)